SAMSUNG SM 1200NF

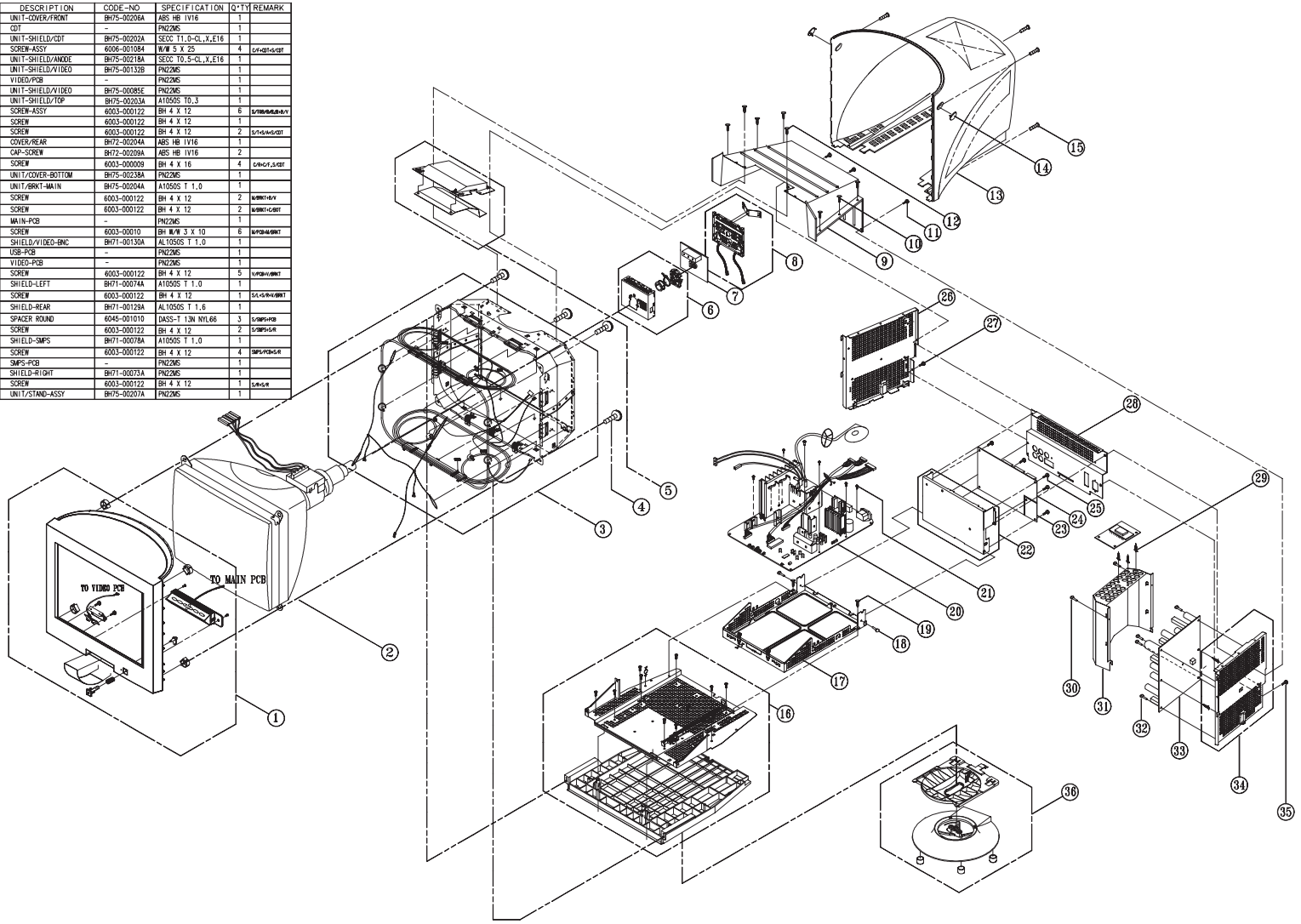
MODEL

SERVICE MANUAL

6 Exploded View and Parts List

PN22N**

NO	DESCRIPTION	CODE-NO	SPECIFICATION	Q'TY	REMARK
1	UNIT-COVER/FRONT	BH75-00206A	ABS HB IV16	1	
2	CDT	-	PN22MS	1	
3	UNIT-SHIELD/CDT	BH75-00202A	SECC T1.0-CL,X,E16	1	
4	SCREW-ASSY	6006-001084	W/W 5 X 25	4	C/F+CDT+S/CDT
5	UNIT-SHIELD/ANODE	BH75-00218A	SECC T0.5-CL,X,E16	1	
6	UNIT-SHIELD/VIDEO	BH75-00132B	PN22MS	1	
7	VIDEO/PCB	-	PN22MS	1	
8	UNIT-SHIELD/VIDEO	BH75-00085E	PN22MS	1	
9	UNIT-SHIELD/TOP	BH75-00203A	A1050S T0.3	1	
10	SCREW-ASSY	6003-000122	BH 4 X 12	6	S/BRKT+B/V
11	SCREW	6003-000122	BH 4 X 12	1	
12	SCREW	6003-000122	BH 4 X 12	2	S/T+S/A+S/CDT
13	COVER/REAR	BH72-00204A	ABS HB IV16	1	
14	CAP-SCREW	BH72-00209A	ABS HB IV16	2	
15	SCREW	6003-000009	BH 4 X 16	4	C/B+C/F,S/CDT
16	UNIT/COVER-BOTTOM	BH75-00238A	PN22MS	1	
17	UNIT/BRKT-MAIN	BH75-00204A	A1050S T 1.0	1	
18	SCREW	6003-000122	BH 4 X 12	2	M/BRKT+B/V
19	SCREW	6003-000122	BH 4 X 12	2	M/BRKT+C/BOT
20	MAIN-PCB	-	PN22MS	1	
21	SCREW	6003-00010	BH W/W 3 X 10	6	M/PCB+M/BRKT
22	SHIELD/VIDEO-BNC	BH71-00130A	AL1050S T 1.0	1	
23	USB-PCB	-	PN22MS	1	
24	VIDEO-PCB	-	PN22MS	1	
25	SCREW	6003-000122	BH 4 X 12	5	V/PCB+V/BRKT
26	SHIELD-LEFT	BH71-00074A	A1050S T 1.0	1	
27	SCREW	6003-000122	BH 4 X 12	1	S/L+S/R+V/BRKT
28	SHIELD-REAR	BH71-00129A	AL1050S T 1.6	1	
29	SPACER ROUND	6045-001010	DASS-T 13N NYL66	3	S/SMPS+PCB
30	SCREW	6003-000122	BH 4 X 12	2	S/SMPS+S/R
31	SHIELD-SMPS	BH71-00078A	A1050S T 1.0	1	
32	SCREW	6003-000122	BH 4 X 12	4	SMPS/PCB+S/R
33	SMPS-PCB	-	PN22MS	1	
34	SHIELD-RIGHT	BH71-00073A	PN22MS	1	
35	SCREW	6003-000122	BH 4 X 12	1	S/R+S/R
36	UNIT/STAND-ASSY	BH75-00207A	PN22MS	1	

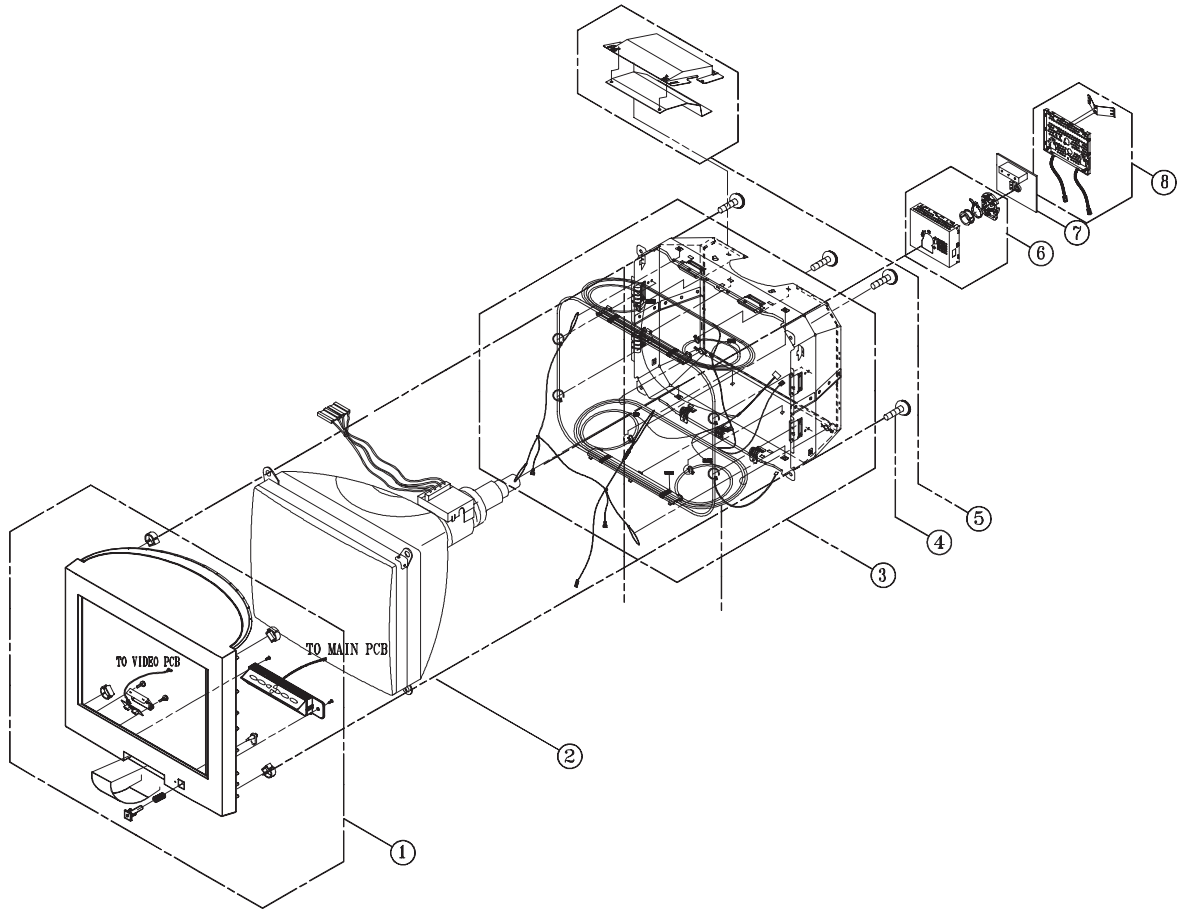


Memo

6 Exploded View and Parts List

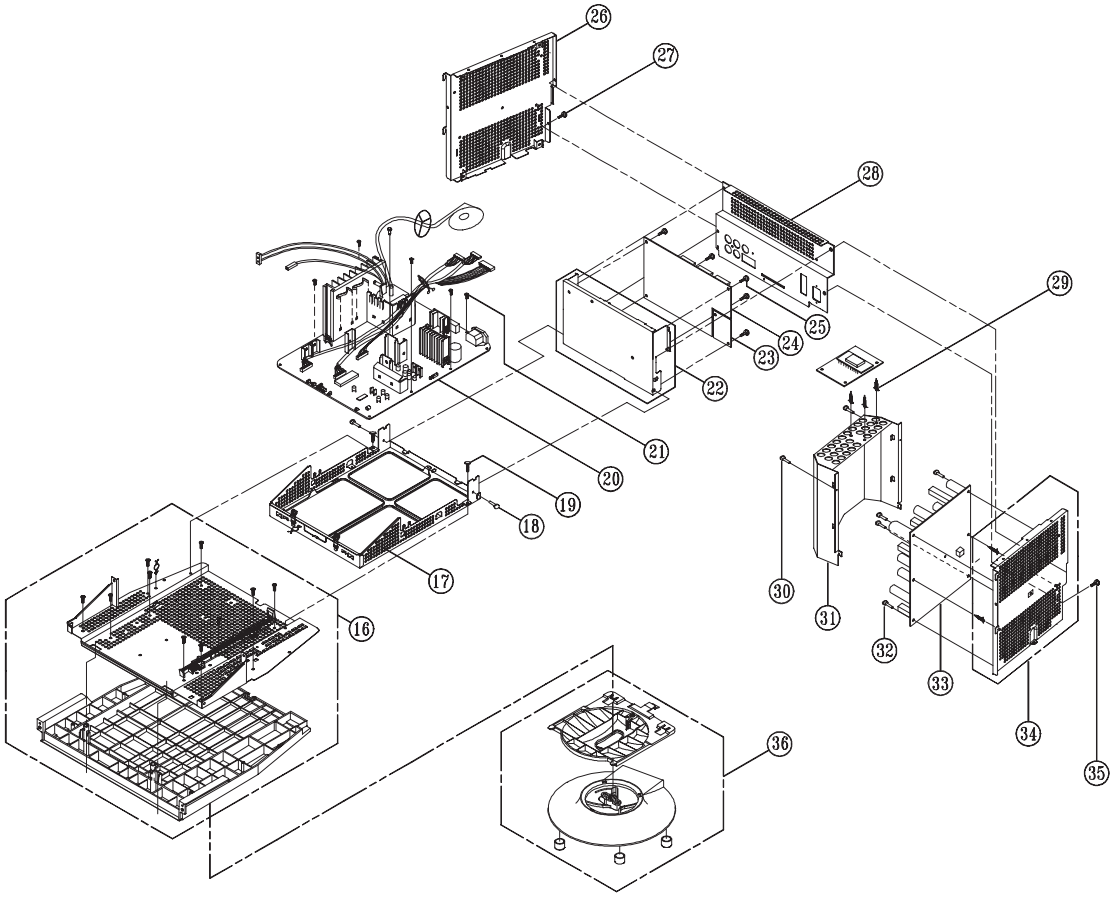
6-1 Front Cover & CRT Ass'y

NO	DESCRIPTION	CODE-NO	SPECIFICATION	Q'TY	REMARK
1	UNIT-COVER/FRONT	BH75-00206A	ABS HB IV16	1	
2	CDT	-	PN22MS	1	
3	UNIT-SHIELD/CDT	BH75-00202A	SECC T1.0-CL,X,E16	1	
4	SCREW-ASSY	6006-001084	W/W 5 X 25	4	C/F+CDT+S/CDT
5	UNIT-SHIELD/ANODE	BH75-00218A	SECC T0.5-CL,X,E16	1	
6	UNIT-SHIELD/VIDEO	BH75-00132B	PN22MS	1	
7	VIDEO/PCB	-	PN22MS	1	
8	UNIT-SHIELD/VIDEO	BH75-00085E	PN22MS	1	



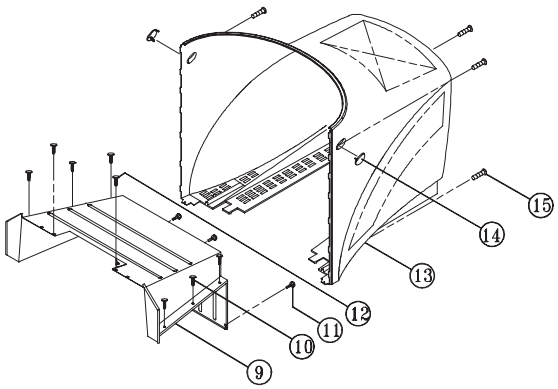
6-2 Chassis & Stand Ass'y

NO	DESCRIPTION	CODE-NO	SPECIFICATION	Q'TY	REMARK
16	UNIT/COVER-BOTTOM	BH75-00238A	PN22MS	1	
17	UNIT/BRKT-MAIN	BH75-00204A	A1050S T 1.0	1	
18	SCREW	6003-000122	BH 4 X 12	2	M/BRKT+B/V
19	SCREW	6003-000122	BH 4 X 12	2	M/BRKT+C/BOT
20	MAIN-PCB	-	PN22MS	1	
21	SCREW	6003-00010	BH W/W 3 X 10	6	M/PCB+M/BRKT
22	SHIELD/VIDEO-BNC	BH71-00130A	AL1050S T 1.0	1	
23	USB-PCB	-	PN22MS	1	
24	VIDEO-PCB	-	PN22MS	1	
25	SCREW	6003-000122	BH 4 X 12	5	V/PCB+V/BRKT
26	SHIELD-LEFT	BH71-00074A	A1050S T 1.0	1	
27	SCREW	6003-000122	BH 4 X 12	1	S/L+S/R+V/BRKT
28	SHIELD-REAR	BH71-00129A	AL1050S T 1.6	1	
29	SPACER ROUND	6045-001010	DASS-T 13N NYL66	3	S/SMPS+PCB
30	SCREW	6003-000122	BH 4 X 12	2	S/SMPS+S/R
31	SHIELD-SMPS	BH71-00078A	A1050S T 1.0	1	
32	SCREW	6003-000122	BH 4 X 12	4	SMPS/PCB+S/R
33	SMPS-PCB	-	PN22MS	1	
34	SHIELD-RIGHT	BH71-00073A	PN22MS	1	
35	SCREW	6003-000122	BH 4 X 12	1	S/R+S/R
36	UNIT/STAND-ASSY	BH75-00207A	PN22MS	1	



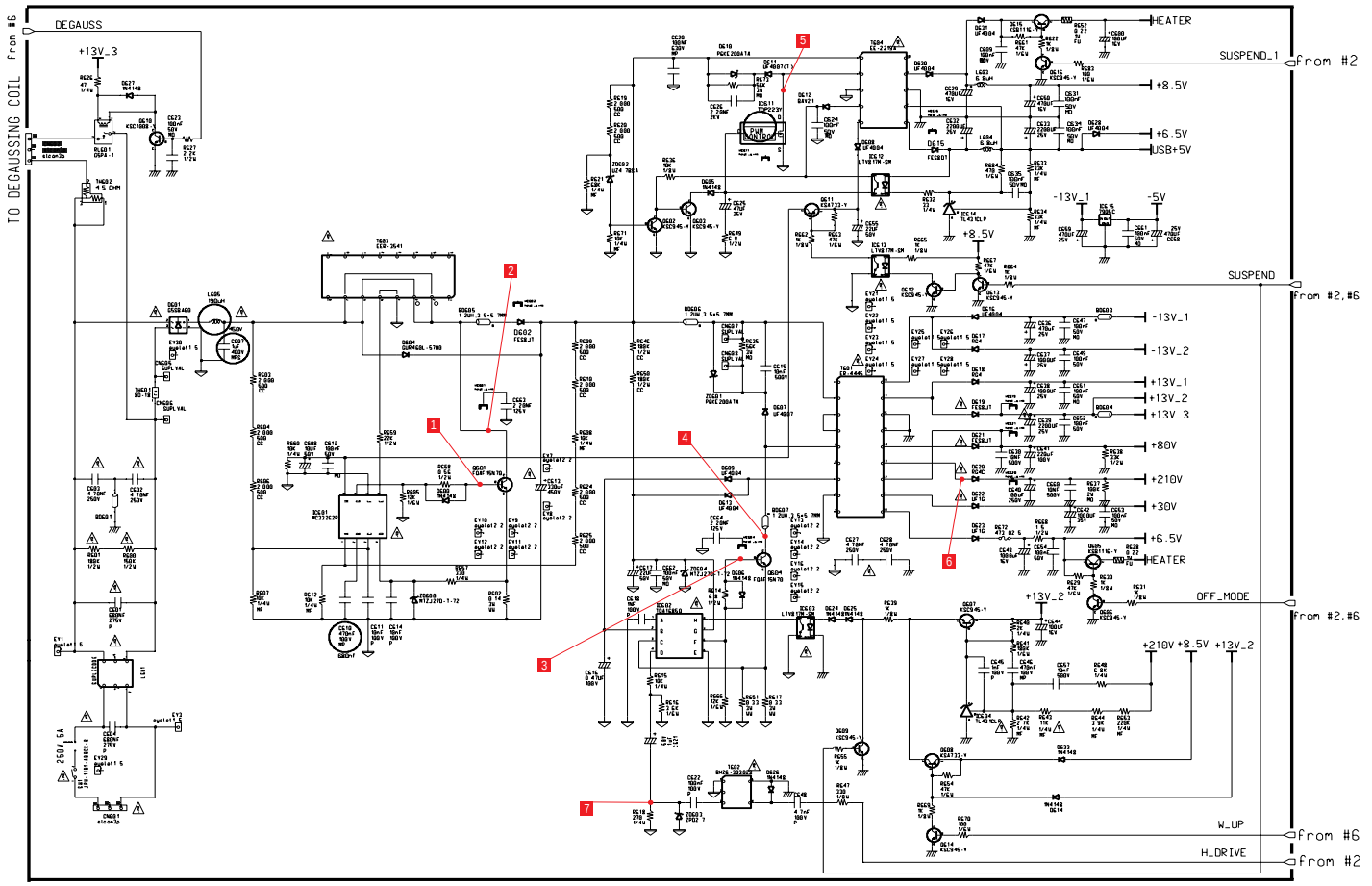
6-3 Rear Cover Ass'y

NO	DESCRIPTION	CODE-NO	SPECIFICATION	Q'TY	REMARK
9	UNIT-SHIELD/TOP	BH75-00203A	A1050S T0.3	1	
10	SCREW-ASSY	6003-000122	BH 4 X 12	6	S/T0B/F8/B,B+B/V
11	SCREW	6003-000122	BH 4 X 12	1	
12	SCREW	6003-000122	BH 4 X 12	2	S/T+S/A+S/CDT
13	COVER/REAR	BH72-00204A	ABS HB IV16	1	
14	CAP-SCREW	BH72-00209A	ABS HB IV16	2	
15	SCREW	6003-000009	BH 4 X 16	4	C/R+C/F,S/CDT

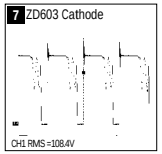


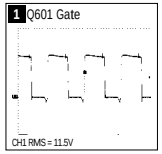
10 Schematic Diagrams

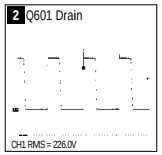
10-1 Power Part Schematic Diagram

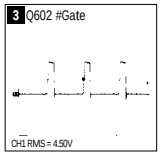


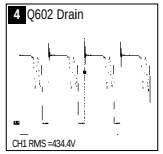
WAVEFORMS

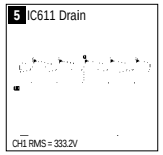


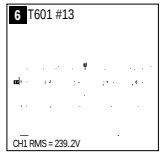




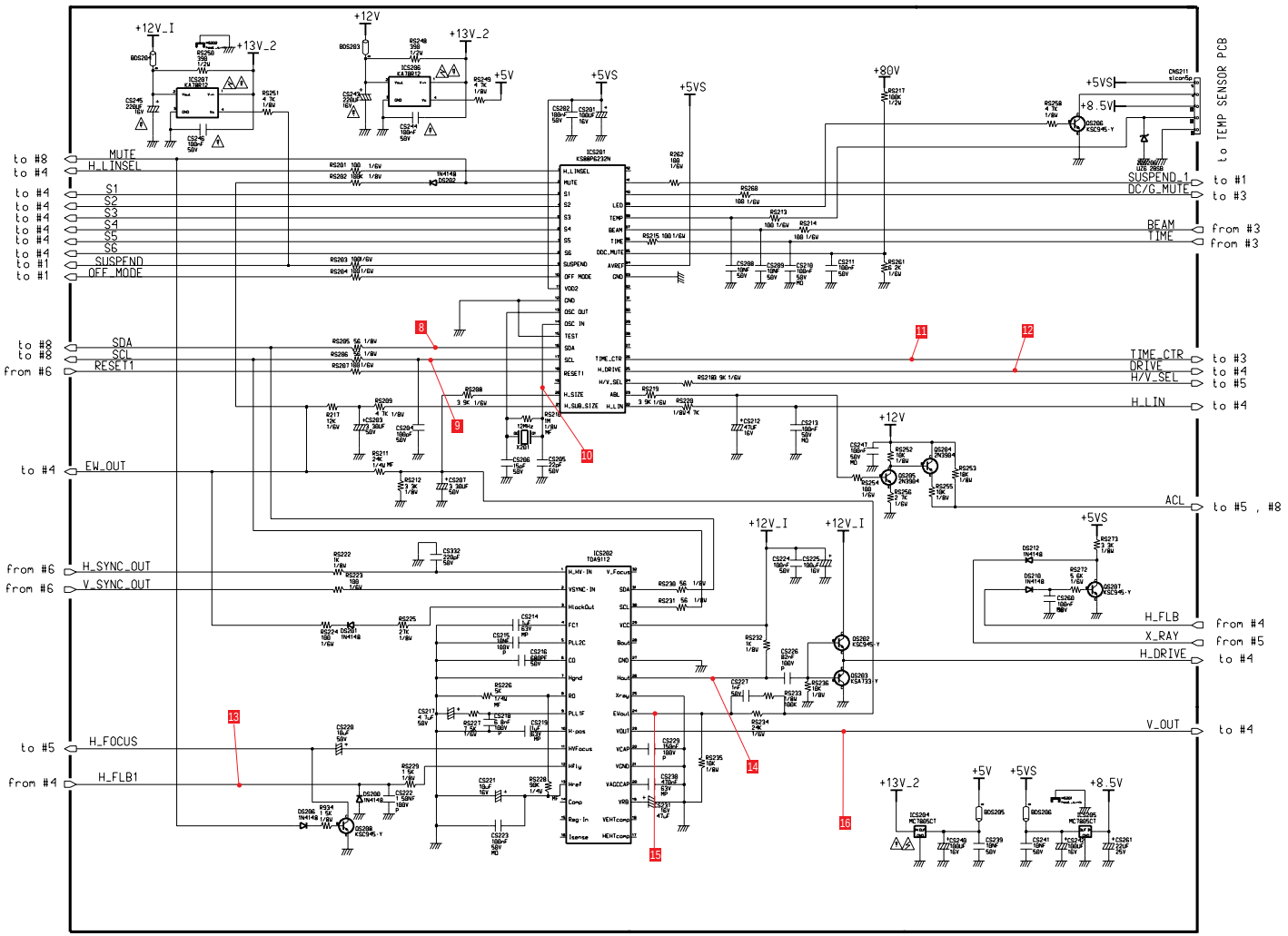


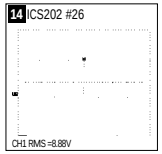


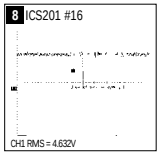


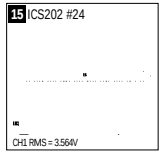


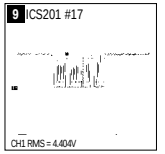
10-2 Micom & Process Part Schematic Diagram

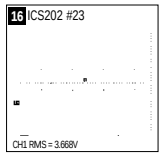


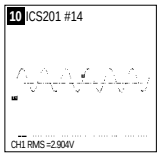


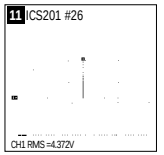


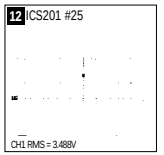


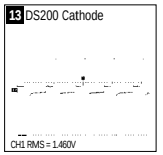




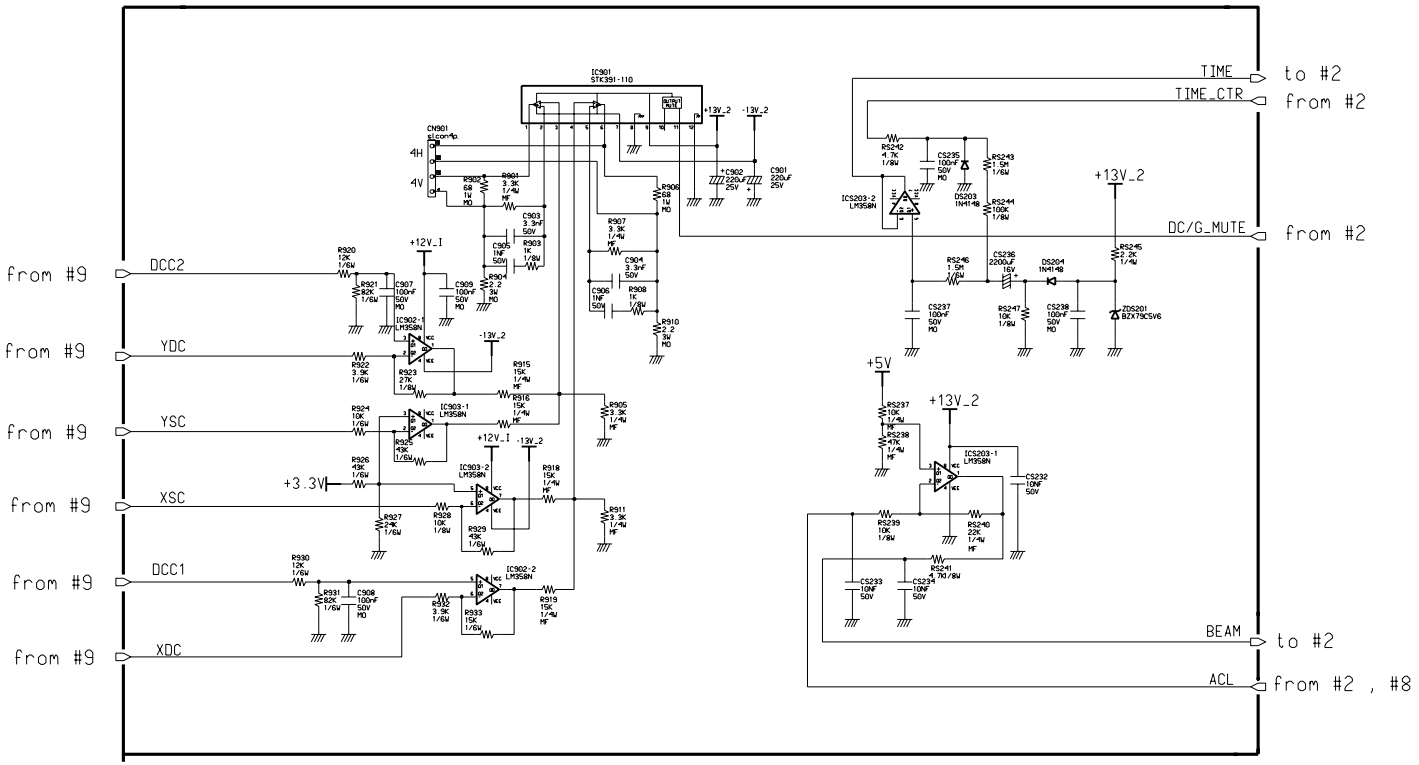




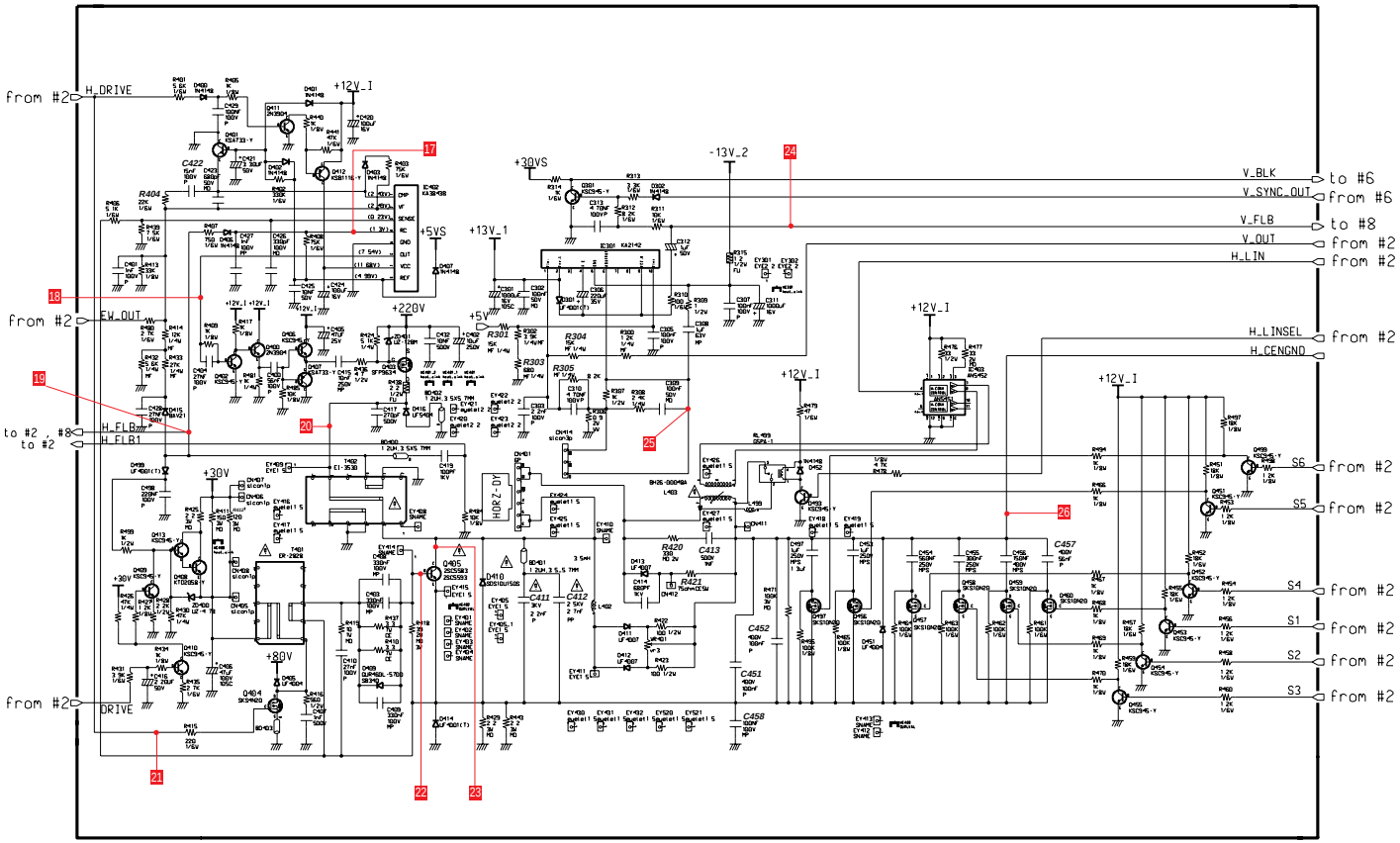


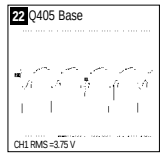


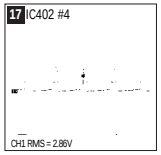
10-3 D/Convergence & Purity Part Schematic Diagram

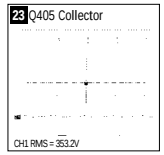


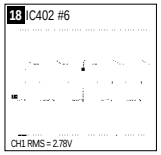
10-4 HORI & VERTICAL Part Schematic Diagram

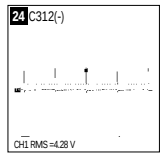


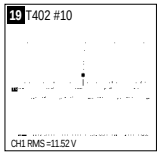


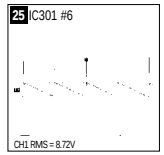


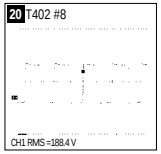


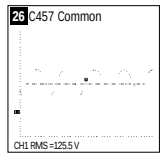


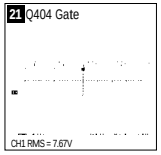










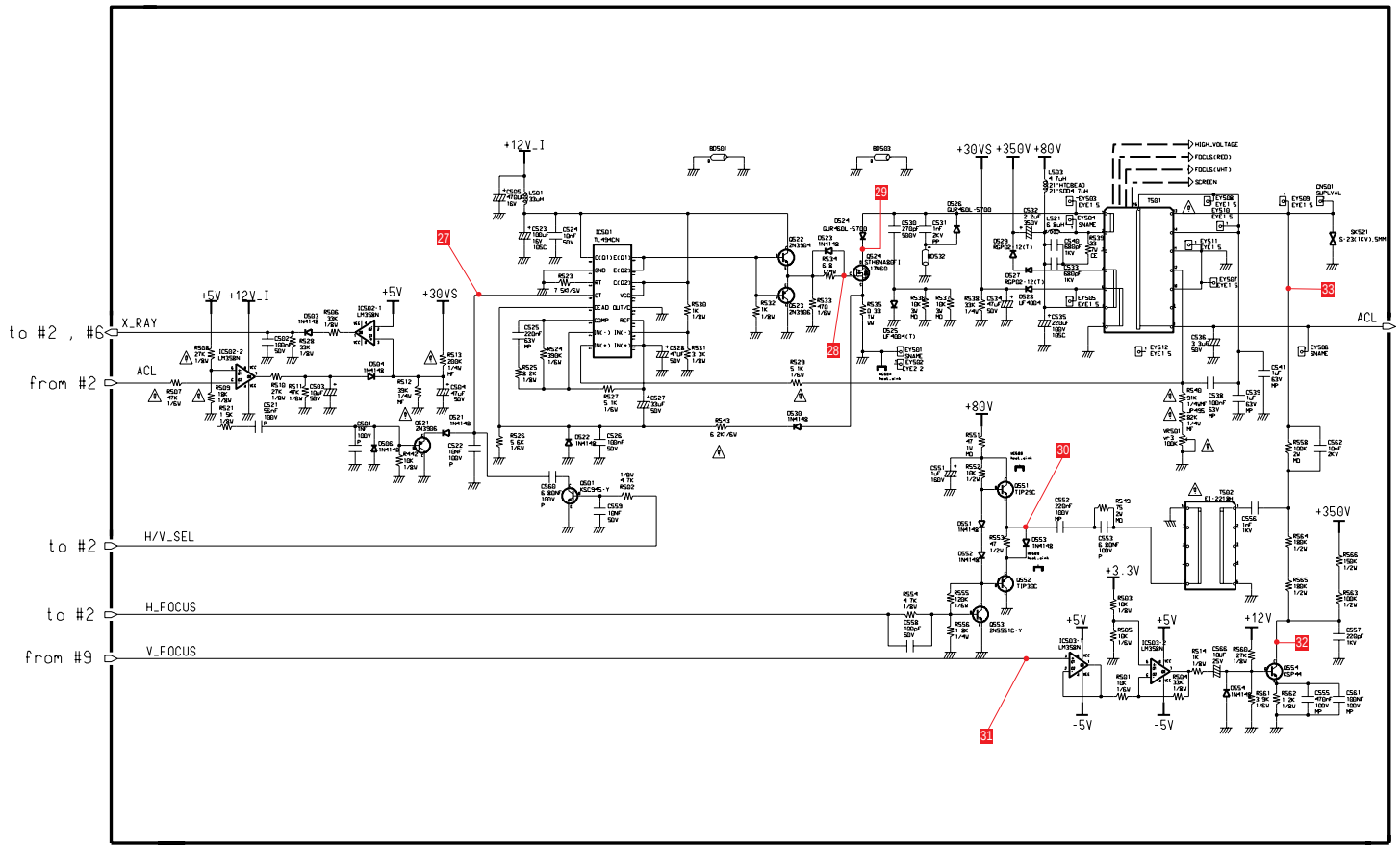


S-CORRECTION

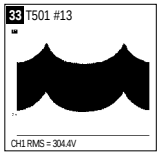
22”

H-FREQUENCY	S1	S2	S3	S4	S5	S6
~ 34.9 kHz	H	H	H	H	H	H
35.0 kHz ~ 36.9 kHz	H	H	H	L	H	H
37.0 kHz ~ 39.9 kHz	L	L	H	L	H	H
40.0 kHz ~ 43.9 kHz	H	L	L	H	H	L
44.0 kHz ~ 50.9 kHz	L	L	H	L	H	L
51.0 kHz ~ 60.9 kHz	L	H	L	H	L	L
61.0 kHz ~ 64.9 kHz	L	L	L	H	L	L
65.0 kHz ~ 67.9 kHz	L	H	H	L	L	L
68.0 kHz ~ 72.9 kHz	L	H	H	L	L	L
73.0 kHz ~ 75.9 kHz	H	L	H	L	L	L
76.0 kHz ~ 77.9 kHz	H	L	H	L	L	L
78.0 kHz ~ 80.9 kHz	L	L	H	L	L	L
81.0 kHz ~ 84.9 kHz	H	H	L	L	L	L
85.0 kHz ~ 91.9 kHz	L	H	L	L	L	L
92.0 kHz ~ 94.9 kHz	L	H	L	L	L	L
95.0 kHz ~ 99.9 kHz	L	H	L	L	L	L
100.0 kHz ~ 104.9 kHz	L	H	L	L	L	L
105.0 kHz ~ 109.9 kHz	H	L	L	L	L	L
110.0 kHz ~ 114.9 kHz	L	L	L	L	L	L
115.0 kHz ~ 119.9 kHz	L	L	L	L	L	L
120.0 kHz ~ 124.9 kHz	L	L	L	L	L	L
125.0 kHz ~ 129.9 kHz	L	L	L	L	L	L

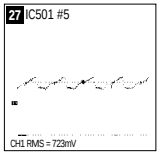
10-5 HIGH VOLTAGE Parts Schematic Diagram



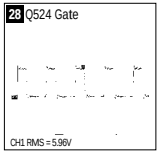
33 T501 #13



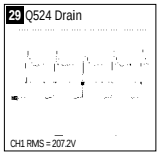
27 IC501 #5



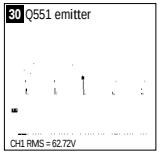
28 Q524 Gate



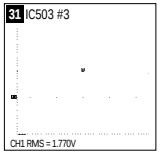
29 Q524 Drain



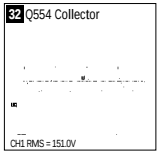
30 Q551 emitter



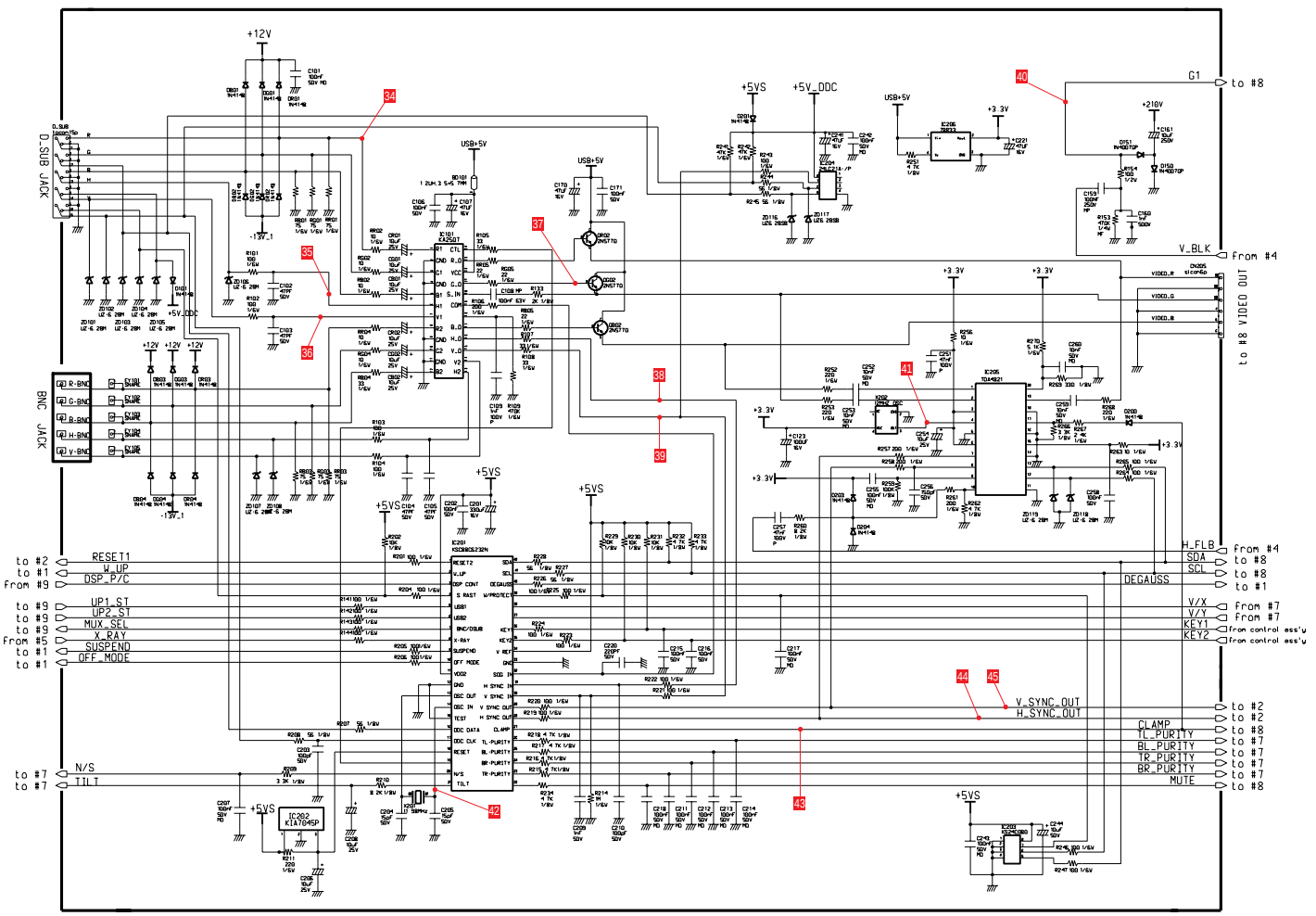
31 IC503 #3

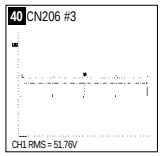


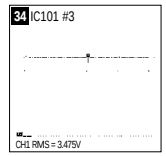
32 Q554 Collector

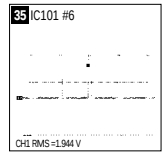


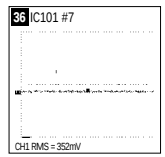
10-6 Video_BNC Parts Schematic Diagram

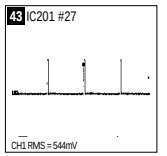


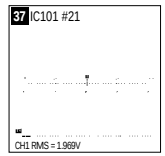


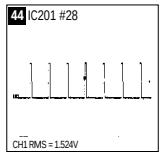


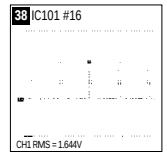












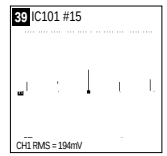


Table 10-1. IC201 (KS88P6348)

pin #	MODES				pin #	MODES			
	31 kHz	68 kHz	91 kHz	106 kHz		31 kHz	68 kHz	91 kHz	106 kHz
1	5.18	5.13	5.14	5.13	22	0	0	0	0
2	0	0	0	0	23	4.1	4.08	4.09	4.06
3	5.18	5.13	5.13	5.11	24	3.07	3.08	3.02	3.04
4	0	0	0	0	25	4.4	4.38	4.37	4.34
5	0	0	0	0	26	2.86	2.89	2.87	2.87
6	0	0	0	0	27	0.77	0.84	0.93	1
7	0	0	0	0	28	1.84	1.47	1.62	1.6
8	0	0	0	0	29	0.77	0.38	0.64	2.54
9	0	0	0	0	30	0.77	0.39	0.36	2.58
10	4.94	4.87	4.87	4.85	31	4.83	1.3	1.49	1.59
11	5.13	5.13	5.14	5.13	32	5.13	5.13	5.13	5.13
12	GND	GND	GND	GND	33	GND	GND	GND	GND
13	3.12	3.14	3.14	3.14	34	5.13	5.14	5.13	5.13
14	2.91	2.93	2.93	2.92	35	5.13	5.11	5.1	5.1
15	GND	GND	GND	GND	36	5.13	5.1	5.1	5.1
16	3.61	3.7	3.62	3.7	37	0.4	0.26	0.25	0.17
17	5.15	5.11	5.11	5.1	38	0.14	0.26	0.25	0.17
18	5.18	5.13	5.14	5.13	39	5.13	5.13	5.13	5.13
19	0	0	0	0	40	0	0	0	0
20	0	0	0	0	41	3.78	4.98	4.97	3.35
21	3.08	3.08	3.06	3.07	42	4.31	5.04	4.33	4.31

Table 10-2. IC205 (TDA4821)

pin #	MODES				pin #	MODES			
	31 kHz	68 kHz	91 kHz	106 kHz		31 kHz	68 kHz	91 kHz	106 kHz
1	1.05	1	1	1	11	GND	GND	GND	GND
2	1.09	1.07	10.3	1.03	12	4.96	4.96	4.96	4.96
3	3.46	3.46	3.46	3.45	13	5.02	5.02	5.02	5.01
4	0	0	0	0	14	GND	GND	GND	GND
5	GND	GND	GND	GND	15	3.46	3.46	3.46	3.46
6	3.46	3.45	3.46	3.45	16	GND	GND	GND	GND
7	1.85	1.41	1.62	1.58	17	0.32	0.32	0.36	0.38
8	0.37	0.34	0.3	0.29	18	GND	GND	GND	GND
9	0	0	0	0	19	1.08	1.16	1.06	1.06
10	0.9	1.31	1.49	1.6	20	0.42	0.42	0.42	0.42

Table 10-3. IC101 (KA2507)

pin #	MODES				pin #	MODES			
	31 kHz	68 kHz	91 kHz	106 kHz		31 kHz	68 kHz	91 kHz	106 kHz
1	3.6	3.63	3.62	3.62	13	0	0	0	0
2	GND	GND	GND	GND	14	0	0	0	0
3	3.61	3.62	3.62	3.62	15	0.41	0.39	0.36	0.34
4	GND	GND	GND	GND	16	4.48	1.25	1.25	1.42
5	4.34	3.62	3.62	3.62	17	2.09	2.1	2.1	2.09
6	0.35	1.25	1.45	1.42	18	3.89	3.72	3.72	3.76
7	0.35	0.32	0.29	0.28	19	4.87	4.96	4.96	5.03
8	0.25	0.26	0.21	0.25	20	3.44	3.41	3.41	3.41
9	GND	GND	GND	GND	21	2.09	2.1	2.09	2.1
10	0	0	0	0	22	5.11	5.11	3.62	5.12
11	GND	GND	GND	GND	23	2.11	2.11	2.11	2.11
12	0	0	0	0	24	0	0	0	0

10-7 Purity Parts Schematic Diagram

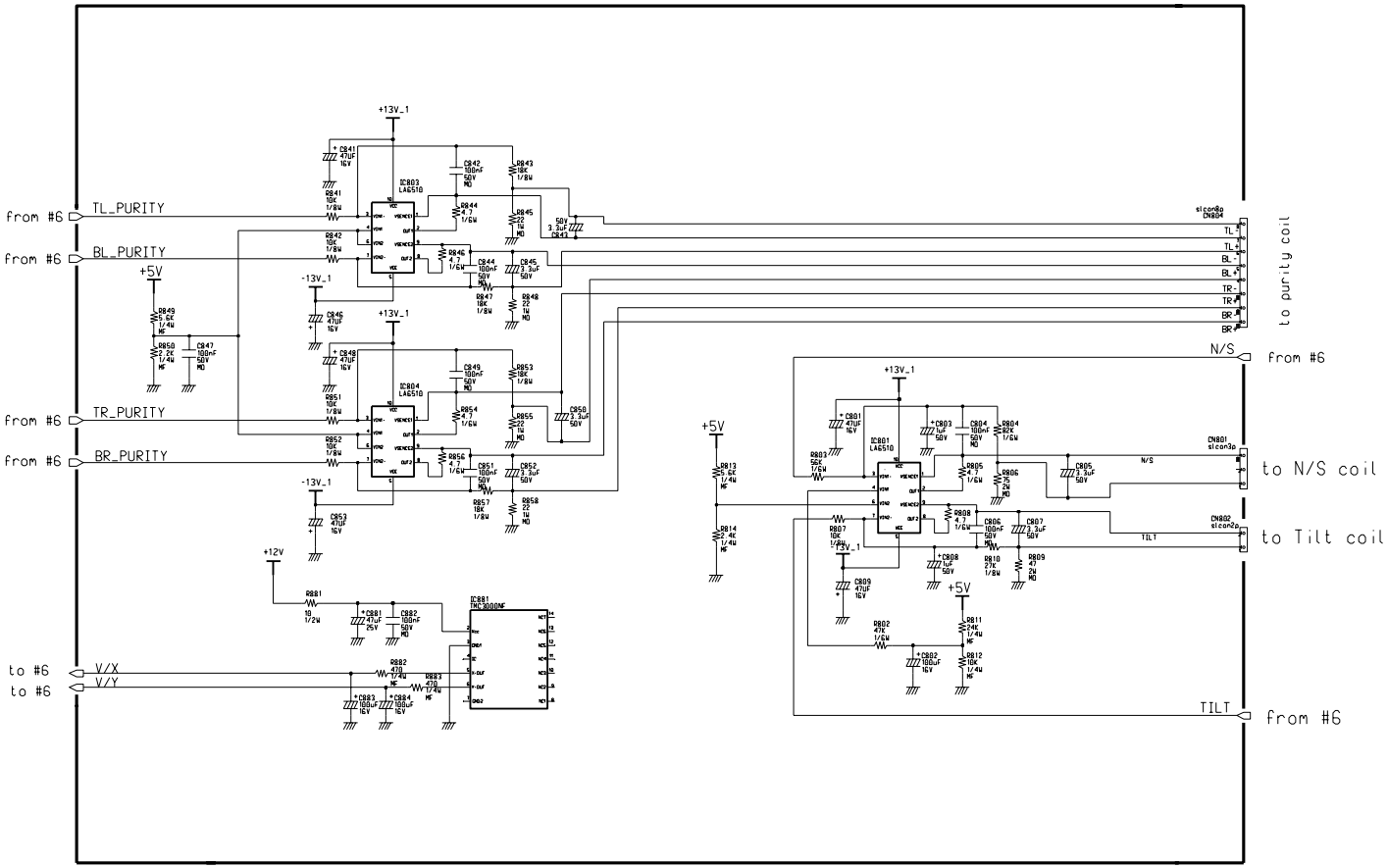


Table 10-4. IC801 (LA6510)

pin #	MODES			
	31 kHz	68 kHz	91 kHz	106 kHz
1	13.92	13.93	13.93	13.92
2	13.92	13.93	13.93	13.92
3	2.39	2.6	2.59	2.58
4	1.41	1.41	1.41	1.41
5	14.59	14.59	14.59	14.59
6	1.2	1.2	1.2	12.2
7	1.25	1.25	1.25	1.25
8	13.96	13.96	13.96	13.93
9	13.96	13.96	13.96	13.96
10	14.52	14.54	14.52	14.52

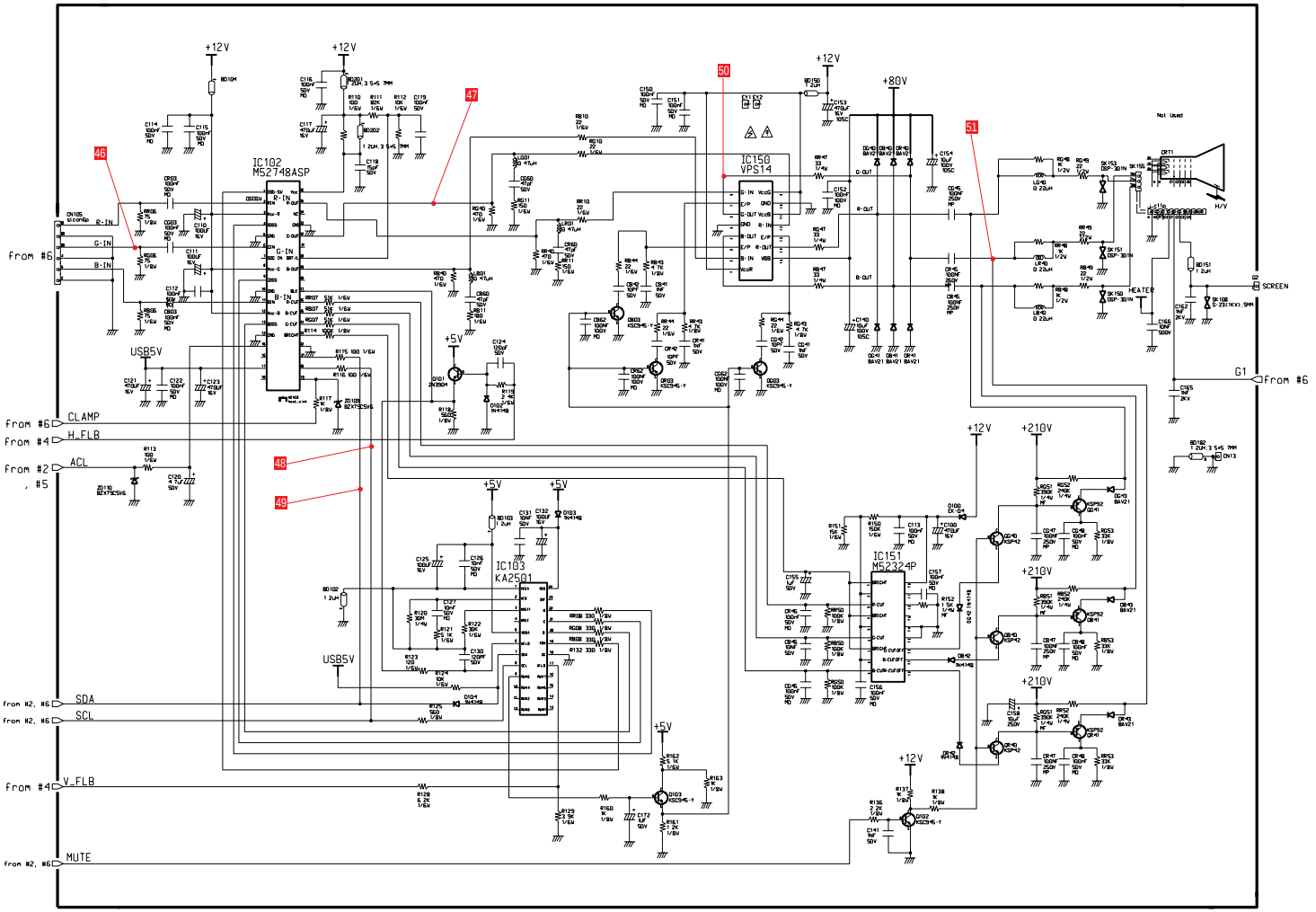
Table 10-5. IC803 (LA6510)

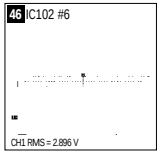
pin #	MODES			
	31 kHz	68 kHz	91 kHz	106 kHz
1	13.99	13.99	13.99	13.99
2	13.99	13.99	13.99	13.99
3	0.81	0.78	0.79	0.79
4	1.2	1.2	1.2	1.2
5	14.59	14.59	14.59	14.59
6	1.2	1.2	1.2	1.2
7	1.52	1.52	1.52	1.52
8	13.92	13.92	13.92	13.92
9	13.92	13.92	13.92	13.92
10	14.52	14.52	14.52	14.52

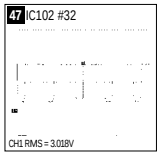
Table 10-6. IC804 (LA6510)

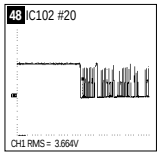
pin #	MODES			
	31 kHz	68 kHz	91 kHz	106 kHz
1	14	14	14	14
2	14	14	14	14
3	0.81	0.87	0.87	0.87
4	1.2	1.2	1.2	1.2
5	14.6	14.6	14.6	14.6
6	1.2	1.2	1.2	1.2
7	1.4	1.4	1.4	1.4
8	13.94	13.94	13.94	13.94
9	13.94	13.94	13.94	13.94
10	14.52	14.52	14.52	14.52

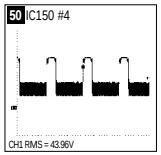
10-8 Video Parts Schematic Diagram











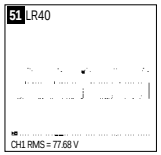


Table 10-7. IC103 (KS2501-19)

pin #	MODES				pin #	MODES			
	31 kHz	68 kHz	91 kHz	106 kHz		31 kHz	68 kHz	91 kHz	106 kHz
1	0	0	0	0	13	4.08	4.23	4.2	4.18
2	2.03	1.91	2.56	2.91	14	NC	NC	NC	NC
3	1.29	1.29	1.3	1.29	15	NC	NC	NC	NC
4	NC	NC	NC	NC	16	NC	NC	NC	NC
5	5.13	5.12	5.12	5.11	17	0.72	0.74	0.73	0.72
6	1.19	1.72	1.95	2.01	18	GND	GND	GND	GND
7	5.01	5.02	5.02	5.02	19	0.19	0.19	0.19	0.19
8	4.96	4.96	4.96	4.96	20	0.19	0.19	0.19	0.19
9	3.69	3.62	3.59	3.58	21	0.19	0.19	0.19	0.19
10	NC	NC	NC	NC	22	0.19	0.19	0.19	0.19
11	NC	NC	NC	NC	23	NC	NC	NC	NC
12	NC	NC	NC	NC	24	4.35	4.3	4.26	4.25

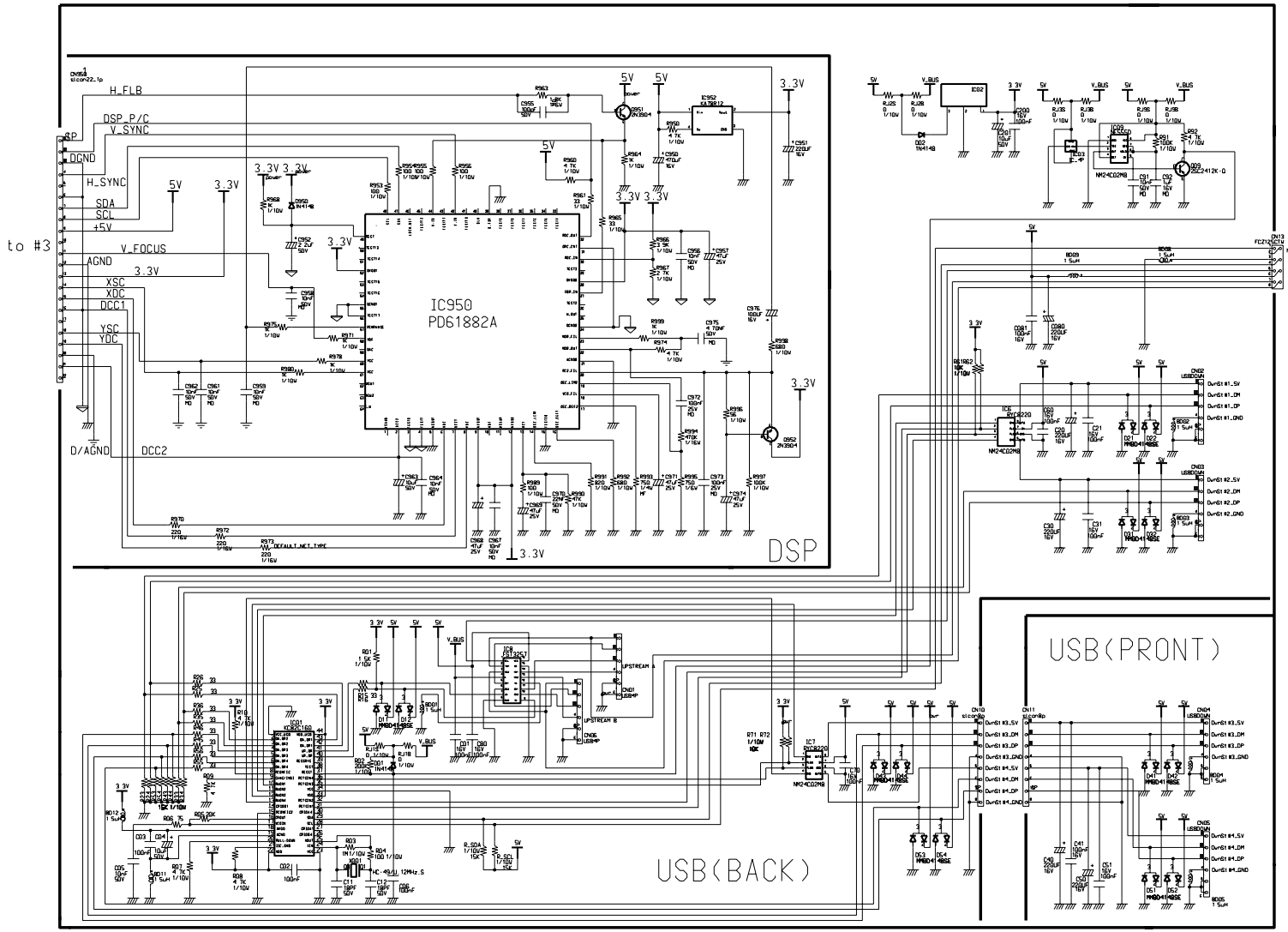
Table 10-8. IC102 (M52742ASP)

pin #	MODES				pin #	MODES			
	31 kHz	68 kHz	91 kHz	106 kHz		31 kHz	68 kHz	91 kHz	106 kHz
1	0.54	0.54	0.54	0.54	19	0.76	0.75	0.86	0.92
2	3.19	3.12	3.12	3.12	20	5.03	5.03	5.03	5.03
3	12.14	12.15	12.14	12.15	21	5.09	5.09	5.09	5.09
4	0.55	0.55	0.55	0.55	22	GND	GND	GND	GND
5	GND	GND	GND	GND	23	2.37	2.37	2.37	2.37
6	3.16	3.12	3.12	3.12	24	2.2	2.25	2.25	2.25
7	NC	NC	NC	NC	25	1.68	1.74	1.74	1.74
8	12.14	12.14	12.14	12.14	26	1.64	1.71	1.71	1.71
9	0.55	0.55	0.55	0.55	27	1.24	1.8	2.05	2.21
10	GND	GND	GND	GND	28	0.24	0.24	0.27	0.25
11	3.19	3.11	3.12	3.12	29	3.3	3.14	3.15	3.12
12	12.14	12.14	12.14	12.14	30	1.16	1.16	1.16	1.16
13	0.55	0.55	0.55	0.55	31	0.26	0.32	0.32	0.29
14	GND	GND	GND	GND	32	3.34	3.16	3.19	3.17
15	4.55	4.97	4.92	4.97	33	GNC	GNC	GNC	GNC
16	NC	NC	NC	NC	34	NC	NC	NC	NC
17	NC	NC	NC	NC	35	3.54	3.37	3.38	3.38
18	NC	NC	NC	NC	36	11.53	11.56	11.56	11.57

Table 10-9. IC150 (VPS17B)

pin #	MODES			
	31 kHz	68 kHz	91 kHz	106 kHz
1	12.14	12.14	12.14	12.14
2	3.36	3.2	3.22	3.2
3	3.5	3.23	3.23	3.22
4	46.36	48.48	48.32	48.44
5	0	0	0	0
6	46.88	49.04	48.88	49.12
7	3.26	3.08	3.09	3.07
8	3.23	3.06	3.08	3.07
9	13.06	13.06	13.06	13.06
10	0	0	0	0
11	12.18	12.18	12.18	12.18
12	3.66	3.46	3.48	3.47
13	3.64	3.46	3.49	3.49
14	45.8	48.1	48	48.2
15	81.2	81.2	81.2	81.1

10-9 DSP& USB Part Schematic Diagram



Memo